

### REMARKS

Claims 1-20 are pending with claims 1, 8, 13, and 16 being independent. In light of the following remarks, reconsideration and allowance of all claims are requested.

#### **Applicant Initiated Interview Summary**

Applicant thanks Examiner Ortiz and Primary Examiner Kindred for the interview conducted with Applicant's representatives Mr. William Hunter and Mr. Hwa Lee on February 15<sup>th</sup>, 2007. The rejection of the pending claims (especially independent claims 1, 8, 13 and 16) under 35 U.S.C. § 102(b) based on U.S. Patent No. 4,914,569 to Levine et al. ("Levine") was discussed. Examiner Ortiz was unable to articulate how Levine anticipated the pending claims. It was agreed that Examiner Ortiz will call Mr. Lee after reviewing the current response and before mailing out the next Office Action.

#### **Rejections Under 35 U.S.C. § 102**

Claims 1-20 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Levine. The rejections and their underlying reasoning are traversed.

#### **The Rejection Violates 35 U.S.C. Section 132 and is Improper**

As stated in the previous response, Applicant respectfully submits that the rejection violates 35 U.S.C. § 132 and is, thus, improper because the explanation the Office provides lacks sufficient specificity. 35 U.S.C. § 132 provides, in relevant part, that "whenever, on

examination, any claim for a patent is rejected, or any objection or requirement made, the Commissioner shall notify the applicant thereof, stating the reasons for such rejection, or objection or requirement, together with such information and references as may be useful in judging of the propriety of continuing the prosecution of his application.” A claim rejection violates 35 U.S.C. § 132 if it “is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection.” *See Chester v. Miller*, 906 F.2d 1574, 1578, 15 USPQ2d 1333, 1337 (Fed. Cir. 1990).

The instant rejection of claims 1-20 consists of the claim language from the present application, interspersed with bare citations to Levine. No explanation of how the Office interprets Levine such that the claims read on Levine is provided. Since no reasons for the rejection have been stated, Applicant respectfully submits that the grounds of rejection cannot be fully recognized and countered. Thus, Applicant respectfully submits that the rejection violates 35 U.S.C. § 132 and is, therefore, improper.

Nonetheless, in the interest of expediting prosecution, and assuming that the rejection does not violate 35 U.S.C. Section 132 (which is not conceded), Applicant presents arguments below that emphasize the differences between Levine and the presently claimed subject matter.

#### Independent Claims 1 and 16

Levine fails to disclose or suggest each and every feature of claim 1. For example, Levine fails to disclose ***associating a record key with a database key in response to a record access, the record key comprising a key used to identify the record, and the database key comprising a key used to track the record*** as recited in claim 1. While the Office alleges that

Levine discloses the claimed features at FIGS 1-2; Col. 3, ll. 52-56; and Col. 4, ll. 1-38, the cited portions fail to support the allegation. Levine does not expressly disclose any of the claimed features, and the Office fails to articulate how Levine allegedly anticipates the claimed features.

Levine is directed to accessing employee records stored “in a computer memory.” *See* Levine, Col. 3, ll. 52-54. Each record includes “an address portion 28, the employee name 30, and the employee number 32.” *See id.* at Col. 3, ll. 54-57. The address 28 is a memory location assigned to the employee name and employee (*see id.* at Col. 3, ll. 57-59) and not a ***record key associated with a database key in response to a record access*** as recited in claim 1. Levine provides “an index tree” to allow a user to “quickly access a specific record in storage.” *See* Levine at Col. 3, ll. 62-64. Thus, Levine uses the linked nodes of the index tree to jump from one node to another until the desired record is found. *See* Levine at Col. 4, ll. 1-49; FIGS. 1-2. For example, Levine describes using “an alphabetically ordered (ascending) index of the employee’s names.” *Id.* at Col. 4, l. 1-3. “Each employee’s name includes a key. In this example, the key in Levine is the first letter of the employee’s name. The key is used to identify a next level node to be accessed in searching for a specific employee name record.” *See* Levine at Col. 4, ll. 3-7.

While Levine teaches keys as describe above, it is unclear how the Office is interpreting the keys in Levine to reject any of the claimed features. For example, claim 1 recites “a record key” and “a database key,” and it is unclear whether the Office is interpreting the keys in Levine as the record key, the database key or something else. Even if, *arguendo*, the Office Action can be understood to interpret the key in Levine as the claimed record key or the database key, that would be a gross misinterpretation of Levine.

The keys in Levine do not include *a record key* associated with *a database key* as recited in claim 1. Instead, each key in Levine is associated with a node in the index. *See* Levine at Col. 4, ll. 3-7. “The keys are used to identify **a next level node** to be accessed in searching for a specific employee name record.” *Id.* (Emphasis added.) The node in Levine is a part of the index that describes the hierarchical organization of the records stored in the computer memory. Also, even if the node in Levine could reasonably be construed as the *database key* as recited in claim 1, an association between the key and the node is not made *in response to a record access* as recited in claim 1. The index and the nodes in the index in Levine were generated and associated with each other before a user requests a record access.

Also, Levine discloses that each node includes “a set of pointers 62,” and each pointer “points to the information containing the employee name Andrew and employee number.” *See* Levine at Col. 4, ll. 28-31. However, these pointers cannot reasonably be construed as the *database key* since *a record key* is not associated with a pointer in Levine *in response to a record access* as recited in claim 1. The pointers are associated with a node, and not a record key.

Levine also fails to disclose *modifying the record key based on input received via the user interface* as recited in claim 1. The Office alleges that Levine teaches the claimed feature at Col. 2, ll. 12-15 and Col. 5, ll. 7-12. However, the cited portions fail to support the allegation.

Levine suggests only that a record can be changed. *See* Levine at Col. 2, ll. 10-15. “One problem in providing concurrent access to database tables occurs when multiple transactions are trying to access a record at the same time. Specifically, when one user wishes to change a record and another user is attempting to access this record, a contention situation occurs.” *Id.*

However, Levine does not disclose how the change could be accomplished, and thus Levine does not disclose or suggest ***modifying the record key based on input received via the user interface*** as recited in claim 1.

The other portion of Levine cited by the Office discloses that “[i]f the operation is not a fetch operation, in other words the operation is a record insert (or key record insert) or record delete (or key record delete) operation, the program proceeds to step 106 to determine if the next node beneath the parent node is a leaf node or bottom node.” *See* Levine, Col. 5, ll. 7-12.

However, inserting or deleting a record as disclosed in Levine is not sufficient in light of the remaining features of claim 1. Claim 1 also recites ***associating the modified record key with the database key***, which Levine fails to disclose or suggest. In other words, claim 1 recites that the modified record key is now associated with the same database key that was associated with the record key before the modification. Simply inserting or deleting a record as recited in Levine cannot reasonably be construed to include this association between a modified record key and the database key. Levine is silent as to the claimed feature.

Further, Levine fails to disclose or suggest ***providing access to the record through the user interface using the database key associated with the modified record key to identify the record in the database*** as recited in claim 1. Since Levine does not disclose modifying the record key, Levine also fails to disclose these claimed features. Also, Levine uses the key (the first letter of the employee's name) to navigate through the nodes of the index to access a record. Thus, Levine discloses using the index to access the record and not a database key as recited in claim 1.

For at least these reasons, Levine fails to disclose or suggest each and every feature of claim 1. Therefore, claim 1 is allowable over Levine.

Independent claim 16 recites similar features as claim 1, and is allowable over Levine for at least the same reasons.

Dependent Claims 2-7 and 17-20

Claims 2-7 and 17-20 depend from claims 1 and 16, and are allowable over Levine for at least the same reasons as claims 1 and 16 above. In addition, claims 2-7 and 17-20 are patentable over Levine for independent reasons.

For example, Levine fails to disclose or suggest *wherein the database key is a unique value based on information independent of both content and organization of a record in a database* as recited in claims 2 and 17. The Office alleges that Levine discloses this subject matter at column 4, lines. 1-7. However, the cited portion of Levine fails to disclose a database key, and the features disclosed in Levine are dependent on either the content or the organization of the record. *See*, Levine at Col. 4, ll. 1-7.

In this example, the index is an alphabetically ordered (ascending) index of the employee's names. Each employee's name includes a key. In this example, the key is the first letter of the employee's name. The keys are used to identify a next level node to be accessed in searching for a specific employee name record.

*Id.*

Because the Office provides no explanation, it is unclear what in Levine the Office is identifying as the record key and the database key. Regardless, nothing in Levine can reasonably be construed to disclose the features. Since "the index is an alphabetically ordered index of the

employee's names," the index is dependent on the content of the record. *See id.* Also, "the key is the first letter of the employee's name," and thus the key is dependent on the content of the record. *See id.* Further, the node of the index describes the hierarchy of the index, and thus is dependent on the organization of the record. *See id.* Therefore, nothing in Levine can reasonably be construed to disclose ***wherein the database key is a unique value based on information independent of both content and organization of a record in a database*** as recited in claims 2 and 17.

Levine also fails to disclose ***wherein the record includes the associated database key when stored in memory at runtime, the method further comprising removing the database key from the record before storing the record in the database*** as recited in claim 3. The Office alleges that Levine discloses the claimed features at column 4, lines 33-36. However, Levine discloses that "when a transaction accesses a node, the transaction first examines the pointer portion of the node information to determine where the key record information is stored." Levine at Col. 4, ll. 33-36. Again, without any explanation in the Office Action, it is difficult to determine what the Office is identifying as the database key in Levine. Regardless, nothing in Levine can reasonably be construed to disclose the claimed features. Both the node and the pointer in Levine are not ***removed from the record before storing the record in the database*** as recite in claim 1. In fact, Levine does not disclose removing anything that could reasonably be construed as the ***database key from the record before storing the record in the database*** as recited in claim 3.

For at least these additional reasons, dependent claims 2, 3, and 17 are patentable over Levine.

### Independent Claims 8

Levine fails to disclose each and every feature of claim 8. For example, Levine fails to disclose or suggest ***a program that identifies a record by a database key*** as recited in claim 8. As set forth with respect to claim 1 and 16 above, Levine discloses using an index to access a record, and not ***a database key***. In fact, the portions of Levine cited by the Office Action describe using the index and not ***a database key*** as recited in claim 8. *See* Levine at Col. 3, ll. 62-67; Col. 4, ll. 1-5.

In addition, Levine fails to disclose or suggest ***a database key association layer operable to generate the database key and associate the database key with a record key in response to a record access by the program*** as recited in claim 8. The index as disclosed in Levine is not a ***database key association layer*** since the index does not ***generate the database key and associate the database key with a record key in response to a record access by the program*** as recited in claim 8. Levine fails to disclose a database key, a record key, and associating the record key with the database key in response to a record access. Levine fails to expressly disclose the claimed features, and the Office fails to articulate how Levine anticipates the claimed features.

Further, Levine fails to disclose ***wherein the record key comprises a key usable to identify the record in the database*** as recited in claim 8. The key in Levine, which is “the first letter of the employee’s name,” is not used to identify a ***record in the database*** as recited in claim 8. *See* Levine at Col. 4, ll. 4-7. The key in Levine is “used to identify a next level node to be accessed in searching for a specific employee name record.” *See id.*

For at least these reasons, claim 8 is patentable over Levine.



### Dependent Claims 9-12

Claims 9-12 depend from claim 8, and are allowable over Levine for at least the same reasons as claim 8 above. In addition, claims 9-12 are patentable over Levine for additional reasons. For example, claim 9 recites similar features as claim 3, and is allowable over Levine for the additional reasons set forth with respect to claim 3 above. Claim 10 recites similar features as claims 2 and 17 above, and is allowable over Levine for the additional reasons set forth with respect to claims 2 and 17 above.

### Independent Claim 13

Levine fails to disclose or suggest each and every feature of claim 13. For example, Levine fails to disclose a first type of ***database key being a unique value based on information independent of both content and organization of a record in a database*** as recited in claim 13. As set forth with respect to claims 2 and 17 above, the index, the key, and the node in Levine are based either on the content of the record (e.g., first letter of the employee's name) or the organization of the record in the database (e.g., a hierarchy of the index and node). For at least these reasons, claim 13 is allowable over Levine.

### Dependent Claims 14-15

Claims 14-15 depend from claim 13, and are allowable over Levine for at least the same reasons as claim 13 above. Further, claims 14 and 15 are patentable for additional reasons. For

example, claim 14 recites similar features as claims 3 and 9, and is patentable for at least the additional reasons set forth with respect to claims 3 and 9 above.

### CONCLUSION

It is believed that all of the pending rejections of claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be additional reasons for patentability of any or all claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper.

For the foregoing reasons, the patentability of all of the claim of the above referenced application has been established and the issuance of an allowance to that effect is requested.

Please apply the one month extension of time fee and any charges or credits to deposit account 06-1050.

Respectfully submitted,

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William E. Hunter  
Reg. No. 47,671

Fish & Richardson P.C.  
PTO Customer No. **32864**  
Telephone: (858) 678-5070  
Facsimile: (858) 678-5099